

**Brammer Standard Company, Inc.**

# Certificate of Analysis

## GRAY IRONS

*analysis listed as percent by weight*

<b>BS No.</b>	<b>20A</b>	<b>20B-1</b>	<b>20F</b>	<b>20G</b>	<b>BS No.</b>
C	3.33	2.98	3.15	3.33	C
Mn	0.75	0.85	0.61	0.58	Mn
P	0.040	0.088	0.035	0.028	P
S	0.029	0.032	0.024	0.029	S
Si	2.80	1.78	2.50	3.02	Si
Cu	0.54	0.10	0.32	0.54	Cu
Ni	0.06	0.25	0.42	0.38	Ni
Cr	0.034	0.076	0.125	0.086	Cr
Mo	0.18	0.033	0.035	0.19	Mo
Sn	0.10	<0.005	0.095	0.12	Sn
Ti	0.033	0.043	0.014	0.012	Ti
V	----	----	0.020	0.018	V

COOPERATING LABORATORY ANALYSIS was provided by:

Analytical Consulting Services, Houston, TX  
Analytical Process Labs, Milwaukee, WI  
Anderson Laboratories, Milwaukee, WI  
Charles C. Kawin Co., Maywood, IL  
Chicago Spectro Service Labs, Chicago, IL  
Midstates Analytical Labs, Tulsa, OK  
Spectrochemical Labs, Pittsburgh, PA  
Taussig Associates, Chicago, IL

CHEMICAL ANALYSES were made on millings from the cross-section of the bars. The values listed are the average of wet chemical analyses and have been checked by spectrographic analyses. Avoid the outer 1/16" rim on all standards.

Certificate No. REC20A,20B-1,20F,20G-052087

**THIS CERTIFICATE OF ANALYSIS HAS BEEN RECREATED FOR POSTING ON THE WEB.**

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